

Chapter 3.1

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1 Safety Precautions

1.1 General Safety Instructions

- The ADC Compact Plus has been designed for scanning medical X-ray image plates and should only be used for these purposes.
- The ADC Compact Plus must only be operated by qualified staff trained on the machine.
- Make sure that the ADC Compact Plus is constantly monitored in order to avoid inappropriate handling, especially by children.
- Only trained service personnel must make repairs. Only authorized service personnel must make changes to the ADC Compact Plus.
- If there is any visible damage to the machine casing, do not start nor use the ADC Compact Plus.
- If you want to connect the ADC Compact Plus with other devices, components or assemblies and if the technical data do not permit determining whether the combination with these devices, components or assemblies involves hazards, you must consult the respective manufacturers to avoid danger for operating personnel or the environment.
- Do not override or disconnect the integrated safety features.
- Switch off the ADC Compact Plus before performing any maintenance work or repairs. Disconnect the ADC Compact Plus from the mains before making repairs or performing any maintenance activities.
- As is the case for all technical devices, the ADC Compact Plus must be operated, cared for and serviced correctly.
- If you don't operate the ADC Compact Plus correctly or if you don't have it serviced correctly, Agfa-Gevaert is not liable for resulting disturbances, damages or injuries.
- When installing the ADC Compact Plus, care must be taken to ensure that there is either a mains plug or an all-cable disconnecting device in the internal installation fitted near the ADC Compact Plus and that it is easily accessible.
- If you notice conspicuous noise or smoke, disconnect the ADC Compact Plus immediately.
- Check that the mains voltage is within the specified range of the self adapting power supply of the machine.



You can hurt your fingers if they are caught between the ADC Cassette
and the edge of the input slot. Insert the cassette in the input buffer as
described in the User Manual. At all times, keep your fingers clear of the
input slot. As soon as the ADC Compact Plus takes in the cassette,
release it.



Warning Label at the Input buffer of the ADC Compact Plus.

1.2 Safety Instructions for Laser Products

The ADC Compact Plus is a class 1 Laser Product. It uses internally a 2 x 50mW laser diode, classification class IIIb.



Under normal operating conditions - when both doors are closed - there can be no laser radiation outside the ADC Compact Plus. It is nonetheless imperative that the local radiation safety regulations regarding the protection of staff against scattered radiation are complied with, if the ADC Compact Plus is located in the immediate vicinity of an X-ray room.

Open the front left and right door only to solve cassette or image plate jams. When you open either of the doors, the power supply of all critical components is switched off automatically as a precaution.

User interventions other than those described in this manual can be hazardous with regard to laser radiation.

1.3 Safety Instructions for Cassette Unit



The Rotation drive of the Cassette Unit turns very fast! Keep away when machine is run with doors opened (e.g. for repair, maintenance).



1.4 Cassettes

Observe great care whenever removing the image plate from the ADC Compact cassette. Refer to the cleaning procedure described in the user manual.



Make sure that the automatic exposure control device is placed above the cassette, to prevent patients from receiving an overdose of X-rays. When it is located underneath the cassette, the backscatter protection (lead) contained in the red side of the cassette, retains a certain amount of X-rays. The dose measured by the cell will then be much lower than the dose actually given to the patient.



The image plate causes a specific X-ray scattering. This influences the response of the exposure control device. To compensate for this, recalibration of the device for the use with ADC Compact cassettes could be necessary.

2 Safety Notes ADC Compact Plus Digitizer

2.1 General

With every repair work check the following points visually:

- Condition of the insulation of the mains plug / mains cable.
- Effects of the strain relief for the mains cable.
- Efficiency of the protective earth on metal panel parts (protective earth connected and spring contacts OK).
- Correct condition of the protection covers.

2.2 To be considered upon Repairs on the ADC Compact Plus

The machine must be protected against accidental activation during repair work. For this purpose we recommend to attach the following sign on the main switch while repairing the machine.

Figure 1



2.3 Safety Switch of the ADC Compact Plus Digitizer



The machine has one safety switch (interlock switch) to ensure the customer's safety.

Nevertheless, it might be possible that in case of software errors the laser beam is still active.

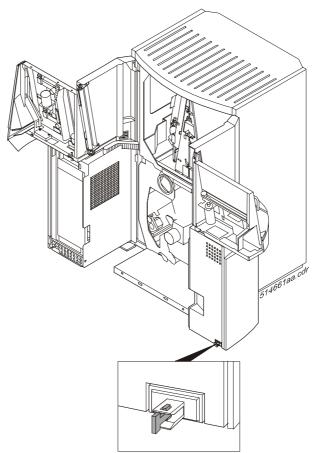


Figure 2

The power supply for all electronic components, except the PCI-Rack, is interrupted when the Digitizer is opened. The PCI-Rack remains energized in order to allow file uploads/downloads.



For service purposes this function can be overridden by means of a service key (see Figure 2). However, be careful, since there is a risk of injury by moving mechanical parts, electrical parts as well as the laser beam.

Consider that the service key must be removed again before the doors are closed. After use of the service key, the function of the safety switch has to be checked.



2.4 Safety Regulations for the Laser Beam



Do not perform any service interventions in the optical path of the digitizer.

2.5 Protective Measures for Electronic Components

Since there is a frequent problem with electrical components which are destroyed by static discharge, protective measures must be taken to avoid this problem. For the repair on electrical components it is necessary to wear the grounding strap around the wrist and connect the other end of this strap on a position of the frame which is free of lacquer. Be attentive, that the frame is grounded!

This grounding strap is available under the spare part number CM+9.9999.0830.0 via LOG-T warehouse in Munich.



2.6 Warning Label on the Input Buffer of the Digitizer

The warning label (see Figure 3) is placed in the upper left corner of the front side of the Input buffer; details see Figure 4.



Figure 3: Warning label (25mm x 25 mm)

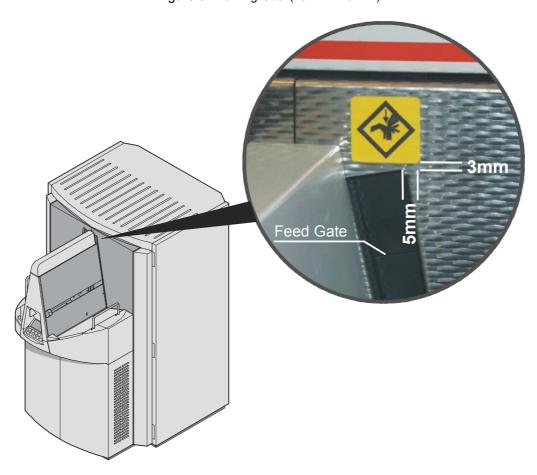


Figure 4: Label position



2.7 Warning Label on the Erasure Unit

The Erasure Unit gets extremely hot during operation. Avoid contact, as there is a risk of burning. Watch the corresponding label, see Figure 5.

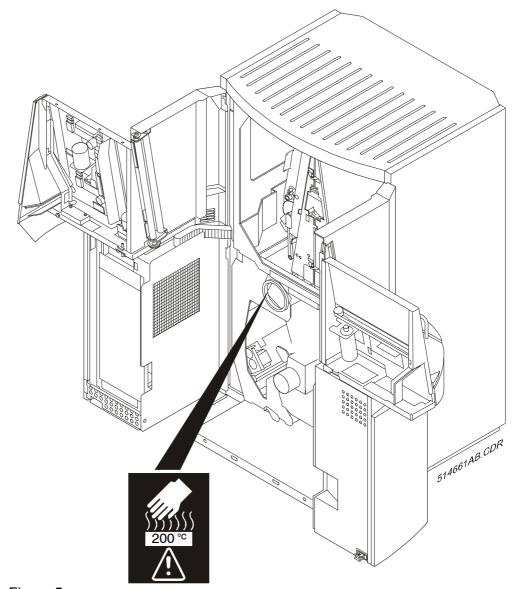


Figure 5

2.8 To be considered with mechanical Tests of Stepper Motor controlled Drive Units

If a stepper motor driven shaft must be turned for checking a mechanical function, make sure to disconnect the stepper motor first on the corresponding control board. (To avoid destruction of the stepper motor control board by induction).

If this is not possible, turn the stepper motor only slowly.